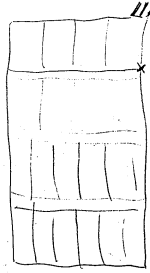
New Jersey and Pennsylvania Concentrating Works Records
Plant Operations Pocket Notebook, PN-99-06-22

This pocket notebook covers the period December 1898-January 1900. The entries in the first part of the book are by Edison and Emil Herter, chief draftsman at the ore milling plant in Ogden, New Jersey. The remaining entries [not selected] are all by Herter. The Edison material consists primarily of notes regarding the operation and performance of conveyors, rock crushers, rollers, hoppers, pulleys, and belts at the Ogden plant. These notes contain many suggestions and proposals for improvements to the machinery. The entries by Herter are mainly notes, drawings, and measurements pertaining to buildings and machinery. Included is material relating to conveyors, elevators, and rolls. The activity recorded in these books corresponds with some of the subjects discussed by Herter in *Thomas A. Edison* v. *Allis Chalmers et al. (Thomas A. Edison Papers: A Selective Microfilm Edition, Part III*, 118: 887-928). The front cover is labeled "9." The pages are unnumbered. Approximately 100 pages have been used.

PN-99-06-22

20x20
400-
6
2400.
550
12 000 1/2m

#75
24
1900
950
11,400.

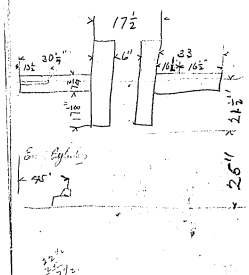


Rear wheels of No 3
Compressor 1/6 enlarged
on back with oil
pocket; B-1303- Seal.
Ok

~~Hears placed 6 2 a~~

Tightness

We may have to bolt
timbers to holding
jackscrew off 3 ft high
down to rock below -
The pressure brings a
powerful upward thrust

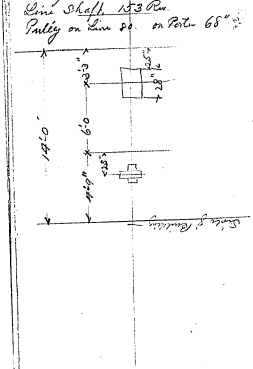


Bevel gears of 3 High
Inside gears over oil
pockets, etc, B. Hub
GK

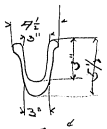
Angle gears on main
shaft [illegible] GK

WE want wider guide
roller put on to prevent
3 High ropes vibrating
a jumping off -
I think a race

Dec. 7th 1898 Porter 180 Rev.
Line Shaft 153 Rev
Pulley on Line 20. on Porter 68"



on each side 1/2 way
up well at a vibration
it need not touch roller
The roll could be of
wood as it probably
will be too heavy of a
roll for the momentary
touch We have had
several bad shut
downs on account
of rope jumping off
I am not so clear



Make high-[illegible] of 1/8" [illegible]

sure that this will stop it but think it will —

Design the check pieces — also the holders — the toggles should be on a track so they can be quickly run out & away from say 2'-0" or more the rollers should feed full with the ^ also the track should be

$$\frac{60 \times 12}{7} = \frac{720}{7} = 102\tfrac{1}{7}$$

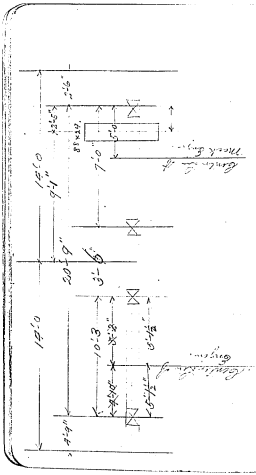
$$\frac{60 \times 5}{60} = 100$$

$$\frac{100 \times 72 \times 96 \times 80}{9 \times 60} = 2070$$

$$19\,\overline{)\,32000}$$
$$1680$$

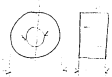
capable of being lowered as we may be compelled to use soft iron & the cinder will be quenchy, Hence the top hopper may have to be lowered 2" inches or more to compensate for the cinder

We should use the ~~make bottom~~ hopper of lap at end of hopper



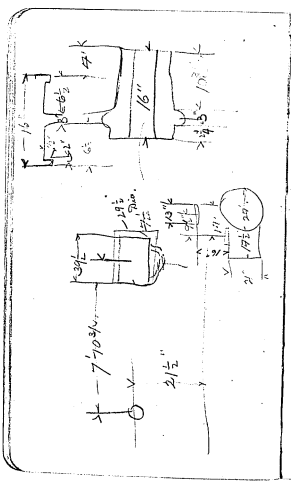
The copper would best be made of electrical with removal plate in bottom for one to view on.

The cobblers window 3 high are inconvenient but can get along with them for a while but those on plan suggested by Andrew should be



put on as soon as we have time —

I think we may have to bolt down to rock below the wobbler pillow block (14) the shaft having bevel gear on the lifting action both of wobbler & pinion in frame fixed on the



pole plate is rather
shaky in the timbers
of plate was bolted
down to rock it would
remedy this trouble
in a great measure.

I have cut the Roller
head off 3 High as
you have this well
in hand —

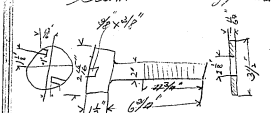
The shutter over big

roller feed should be
a drop shutter cutting
off the ore perfectly
so no struggling pieces
can get to the rolls

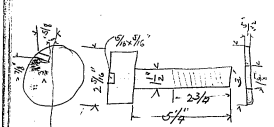
Don't forget that the
Clutch for working
top & bottom feeds
should be arranged
so they can be operated
from top & bottom

10 Shares for [illegible] 1000

Diam'l Rolls Slugg. Plan

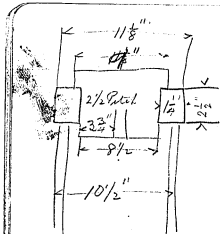


16 - Mantles



22# for Small Rolls.
28# " Diam'l Rolls. —

We should have a take up device for the wire rope of the 3 High, when rope gets slack so point strikes hand of proximal cylinder. We have to splice rope & then take 1/2 day - with take up this would be obviated —



24" 1st & 2nd 36 —
Mandrile taken out —
fixed for ~~[illegible]~~ out collar
Thrust bearings put in
sight feed — Bushes reversible,

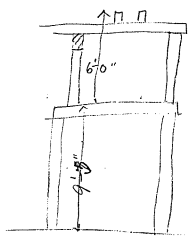
Gears of 24 1st & 2nd 36
Covered with iron Seal.

Chilled iron check
plates put in rolls

Foundation Plate for Bennett's Mill Pitts.

#3 Casting Oct.th 1867 } Orig.
12 " " 1868 } Feb.1894

The Idler on 24" is poor
see Edison & improve it.
Its reported that Idler
dont take up on slack left
line says it goes out
line when no load
not stiff enough & its
Cons.t ability is adjusted
by man on platform
but never stays adjusted
The Rope has broken
twice —

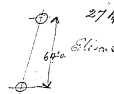


Big fan dryer. 1

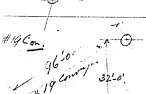
An idler should be put on the fan belt and it has to be taken up quite frequently — The idler should be stiff but light so there is no cross wind to bind the pulley on the idler frame. The weights should be hung with a spring direct of pounds &c

that around several
Corners at various wheels
as seems to be the
favorite method.
If we have the rope
rope around the
sheave should not be
less than 12" diam

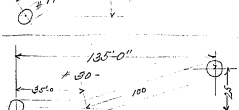
Elevator # 10 Sam Hemm
27 HP.



Elev. Stg. # 20 HP.



15 HP.



15 HP.

On # 12 will do for Dynamo

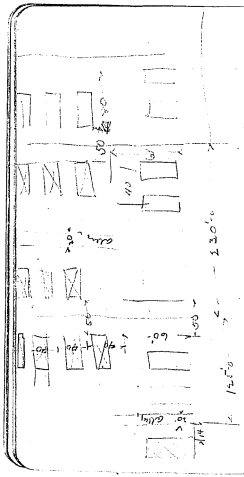
16 6 on each Conveyor will do

4 & 5 Conveyor

New removable tooth sprockets to be put in,

One of the sprocket wheels acting as gears is to have an adjustment so the crotch line of Conveyor sprockets can be adjusted see Sketch —

Gears to be new Covers. OK.

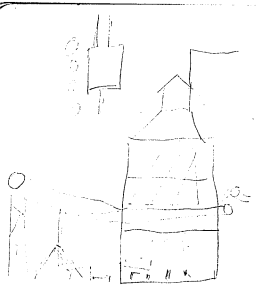


Angle grain Crushing plant.

There is too much rips down shake in pillow blocks.

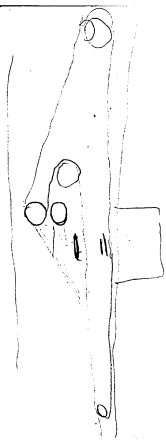
from cover to 6x pitch

top pavement too much cutting I would say that all grain must be left to have Coverage



also that all belts
in mill should have
lightners properly
designed to prevent
cross wind or properly
weighted down at
through rope

Cross conveyor head
up 6 feet to be
[illegible] with
Elev Rod and pounds



powder works OK

The idler on 2nd 36"
Rolls is a bad one
badly arranged
gives bad crumbs

2nd 36. new style ✓
chiselled cheese press

Semi circular cross
around roller feed ✓
2nd 36 should be a
casting - these worn out in a week

2nd 36 Rolla -

Reported that two inside bolts on horsings have not been replaced since chrome plate was shifted, - foreman says plate prevent them from coming on

Report says Drive pulley bolt broken, other loosened & this reported 20 times

A Door should be on outside of 1st Roll however for ease of access.

Fixed idler of 1st 36 Rolls should be changed to a swing idler.

Intermediate

Bushes taken out
+ oil devices
attached, pillow
block drilled for
oil pipe — grease
pocket arranged
with pipe for
water & oil —
Sheet steel dust
guard put over
wooden bearing

fricion drums to have
rope provided with
non-chafe with
a better device for
regulating pressure
an index to tell
men Relative
pressure by position
Bushes made removable
if possible
Same as Plant

Idler giving tension
to belt driving pulley
walls We want
something better —

[ITEM FOUND IN BOOK]

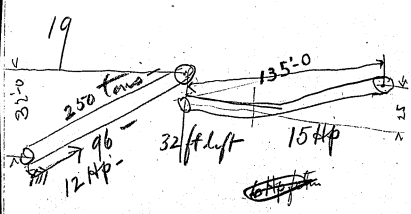
Elevator will never take over 20 Hp = about 800 Rev.
Can go on ~~power lift~~
power station or Friendship

Conveyor 19 12 Hp } 1000 Rev
Dump Conveyor 15 Hp }

(Both Conveyors on
Mc 98 Eng in Mill 1 -

One No 12 will do for
Dynamo -
a No 6 on Each Conveyor
will do

Elev 64 = 300 — 27 Hp



250
1240
100
300
5000
740
540
200
280
20
60) 9333 (300 2nd
60
300
170.38

9333
32
18666
27999
29865
29865
2242
300
672000
70
47040
420
5004
480
240
240
29865

33000) 784000 (23
66000
124000

60) 784000

[ITEM FOUND IN BOOK]

12
20
242
12) 480 (40 HP